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ABSTRACT

This study attempted to identify which tactics used by administrators had the greatest influence on the introduction of special education curriculum innovations. Surveys and interviews with administrators in 39 sites were used to gather data. The administrators were those identified as advocates of a particular innovation, the Social Learning Curriculum for handicapped students. The survey was adapted from the work of Hull and Kester, based on their theoretical framework of tactic types. This framework, however, did not differentiate among advocates' actions used to introduce a curriculum innovation. Consequently a factor analytic procedure was applied to the data. Three tactic use factors were identified and named following Chin and Benne's conceptualization of strategies of changing. This conceptualization identifies strategies as empirical-rational (in this case, involving the communication of information), power coercive (here, involving the use of mandates or orders), and normative-re-educative (involving the creation of conditions within which teachers may innovate). The only tactics that were significantly correlated with extent of diffusion of the innovation (defined as teachers in possession of all or part of the curriculum at the time of the study) were the empirical-rational tactics. A copy of the Leadership Actions Survey is appended. (Author/JM)

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# Using Administrative Tactics to Introduce Curriculum Innovation

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Using Administrative Tactics to Introduce Curriculum Innovation

## Introduction

As part of a larger study of administrative tactics that influence the diffusion and implementation of innovation (Goldstein, M. 1979; 1981) the present study examined administrative tactics used by special education administrators to introduce a specific curriculum innovation. While such a study has implications for all of education, its significance is particularly timely for special education. To date, major efforts have been directed to implementing procedural aspects of Public Law 94-142, the Education of All Handicapped Children Act of 1975. There are, however, indications that the emphasis has begun to shift from procedural to substantive matters concerned with the development and implementation of Individualized Education Programs (IEPs) (Dunst, 1979; Goldstein, H. 1981; Weiner, 1978). Thus, the availability of curriculum that provides a foundation for accountability in IEP development is viewed as an essential element of substantive program planning. This study used a curriculum specifically developed for special education as the vehicle to study the tactics employed by administrators to introduce an innovation into their special education programs.

## Theoretical Frameworks

Most models of the innovation process in education are based on work by theorists concerned with the innovation process in other types of formal organizations. While it is generally conceded that differences in organizational settings and structures influence both the actions and the outcomes of the innovation process, the models share several features. They describe a process that occurs over time in a rational sequence. They start at a point of organizational awareness of the innovation and terminate when the innovation is institutionalized as a routine part of the organization's functioning. The models also focus on the internal problem-solving capability of the organization, as demonstrated by its ability to introduce

innovation, as one means to meet perceived organizational needs. And, finally, the models assume that the organization is an independent system interacting with its environment and drawing innovations from the environment which increase its capacity to meet organizational goals. More detailed discussions of innovation process models may be found in Dill and Friedman (1979) and Goldstein, M. (1979).

A conceptual framework of the diffusion of innovations in education is provided by Hull, Kester and Martin (1973). They identified five dimensions within which the spread of innovation might be studied: (a) the change advocate, (b) the innovation, (c) the targeted consumer of the innovation, (d) the strategies for diffusion of the innovation, and (e) the impact of the innovation. This paper focuses on dimensions of the framework concerned with the change advocate and strategies and tactics for diffusion.

The change advocate. While a sizable literature has been devoted to descriptions of external change agents in education (Havelock, 1973; Mahan, 1972; Miles, 1964; Rogers and Svenning, 1969; Zaltman, Florio and Sikorski, 1977), the importance of strong internal advocacy for successful change efforts is also stressed. Internal advocates, committed to the innovation and knowledgeable about it, were considered to be essential to the success of the innovation process (Havelock, 1973; House, 1974). A conclusion drawn by Gross, Giacquinta and Bernstein (1971) from their study of implementation of a role change model by teachers was that the degree of successful implementation of innovations is a function of the degree to which the school's leadership creates conditions in which innovations can be initiated and maintained.

Scholars have articulated widely varying expectations for the administrator's role as advocate of educational innovations. These expectations range from a view of the administrator as a central force for innovation in the system (Brickell, 1961;

Niedermeyer and Elam, 1977; Wayland, 1964) to a view of the administrator as the creator of both a climate and the conditions within which others in the system are able to innovate (Fullan, 1972; Gallaher, 1965; Kievit, 1975; Miller, 1969).

Dealing more specifically with the status and role of the educational administrator, Havelock (1969) noted that the advocate is the person who acts as the link or gatekeeper between the consumer system and new knowledge, in the form of innovation, that is brought into the system. Farr (1969) found that gatekeepers tend to be in positions of slightly higher status than those whom they influence. Further, he noted that gatekeepers are the most frequent targets of information about educational innovations and that "they exert a disproportionate amount of influence in the adoption of new ideas in education" (p. 10). Studies by Dalin (1973) and Nias (1973) reported that individuals who were in the direct communication flow in educational organizations had higher status and more power than those who had more limited access to information. Further, both studies found that these individuals had greater access to persons outside their organizations who were additional information resources.

A synthesis of the literature concerning the change advocate suggests that this individual is (a) of slightly higher status than those whom he/she influences, (b) in the direct communication flow to receive information concerning the functioning of the organization, and (c) in contact with external information sources to a greater degree than are his/her subordinates. Widely varying role expectations have been stated for the change advocate, from highly visible, active advocacy and leadership of the innovation process to facilitative support of the innovative efforts of others. Nonetheless, it was generally conceded that administrative support for an innovation is necessary if the innovation attempt is to succeed.

Strategies and tactics. Several theorists have proposed change strategies

based on the assumed behaviors or motives of prospective consumers of innovations (Chin and Benne, 1969; Giacquinta, 1973; Guba, 1968; Sieber, 1972). An analysis of common themes shows three basic approaches to change: rational, persuasive, and coercive strategies.

Guba (1968) identified six tactics, telling, showing, helping, involving, training, and intervening, which he viewed as the means that an advocate might use to interact with prospective consumers of an innovation. He noted that these tactics might be used singly or in combination, depending on the advocate's particular objectives.

Diffusion tactics were defined by Brickell (1974) as "specific action(s) intended to achieve a limited short-term objective" (p. 25). He identified the following tactics that might be elements of a rational strategy.

- disseminating information about innovations
- supplying research-based evidence of the utility of the innovation
- demonstrating the innovation to prospective consumers

Research regarding these tactics indicates that dissemination of print information about innovations is the most overutilized tactic in the field of education (Rogers and Svenning, 1969; Turnbull, Thorn and Hutchins, 1974). It was also found that the impersonalness of print resulted in limited impact of this tactic when used in isolation, which provoked the authors to recommend that alternative tactics emphasizing the direct involvement of prospective consumers must also be employed. The use of demonstration/observation tactics has been studied by several researchers Berman and McLaughlin, 1975; Mahan, 1972; Turnbull et al. 1974). Most agree that permitting consumers to observe the innovation in operation was a valuable tactic. However, Turnbull et al. (1974) found that demonstration projects have not been the panacea that some had thought them to be. They reported that the results of this

tactic are uneven, due to the need to train demonstrators in both the use of the innovation and in ways to interact with colleagues who are prospective implementors of the innovation.

Brickell (1974) identified the following tactics which might be aspects of a persuasive strategy.

- appealing to professional norms
- providing leadership opportunities for consumers
- influencing consumers through the prestige of the developer
- involving the consumer in development of the innovation
- distributing semi-finished innovations
- training consumers to use the innovation

Within this strategy, training, trial use, and adaptation to local conditions are tactics that have received attention in the literature. Training consumers to use an innovation has received consistent support from researchers concerned with implementation (Berman and McLaughlin, 1975; Howes, 1977; Mahan, 1972; Turnbull et al. 1974; Widmer, 1977). Turnbull et al. (1974) stressed that "innovations seem to have the greatest prospect for success when they involve a tangible 'product' coupled with provisions for training" (p. 3). Berman and McLaughlin (1975) and Turnbull et al (1974) found that staff training geared to the local site was especially effective, particularly when "how to" workshops giving teachers concrete experiences with the innovation were conducted by local personnel. Turnbull et al. (1974) found, too, that a hands-on approach was preferable to "show and tell" training tactics. Training of administrators was also cited in the research as a critical tactic in promoting morale, cohesiveness and the problem-solving abilities of those involved in the change effort (Berman and McLaughlin, 1975; Mahan, 1972; Turnbull et al. 1974).

Trial or experimental use of the innovation by a limited number of consumers has also been found effective as a tactic to fit the innovation to the setting, and to determine if the innovation will work in expected ways (Haber, 1963; Hall, 1974). Adaptation of the innovation to the local setting has, likewise, been found effective as a means to introduce innovation (Berman and McLaughlin, 1975). Turnbull et al. (1974) reported that involving teachers in the ongoing evolution of an innovation was also a useful tactic. Involvement was seen as an incentive, and as a means to establish local ownership of the innovation so that consumers continued to use it once the novelty had worn off.

Finally, Brickell (1974) identified the following tactics as possible elements within a coercive strategy.

- enacting legislation
- invoking administrative mandate
- applying pressure on the consumer through his/her constituencies
- allocating additional resources to implement the innovation
- supplying new materials and equipment
- negotiating with consumers to implement the innovation in exchange for specified incentives

Within this strategy, two tactics have received attention -- providing tangible rewards and mandating use of the innovation -- and both have been treated cautiously in the literature. Berman and McLaughlin (1975) reported that money and other tangible rewards were not effective inducements for teachers to acquire new skills if their own professional interests or concerns were not met through the use of the innovation. Several researchers have likewise noted that mandating the use of an innovation is a generally ineffective tactic (Berman and McLaughlin, 1975; Connelly, 1972; Mahan, 1972).

Drawing on these earlier formulations of change strategies and tactics, Hull

and Kester (1975) concluded that diffusion tactics could also be categorized into strategies based on assumptions about the needs of consumers of innovations. Thus, they conceived the needs of consumers as: (1) the need for information about the innovation; (2) the need to be persuaded to use the innovation by identifying it with the consumer's personal or professional values; and (3) the need to have incentives given or withheld, or to have the innovation mandated for use. Hull and Kester's (1975) classification system of strategies may be seen as conceptually similar to strategies identified by earlier theorists. Within the strategies, they associated seven tactic types drawn from the work of Guba (1968) and Brickell (1974), as shown in Figure 1.

Hull and Kester's (1975) formulation of strategies and tactic types differs from earlier work in that the authors specified a continuum of tactics conceptually reflecting "the degree of freedom experienced by the individual who is being asked to use the innovation" (p. 15). According to the authors, the tactics of least pressure are those associated with telling the prospective consumer about the innovation, while the greatest pressure is placed on the consumer through an advocate's use of mandate/order tactics. This study examined the logical structuring of tactic types which Hull and Kester (1975) proposed, as a preliminary step to studying the types of tactics used by special education administrators and supervisors to introduce a curriculum innovation into their programs. To accomplish this, it was necessary to:

- specify the types of tactics that might be used by innovation advocates to facilitate introduction of an innovation, based on Hull and Kester's work;
- translate the tactic types into a measure to determine the extent to which each tactic action was used by advocates, and to test the underlying factorial structure of the tactic types;
- specify the curriculum innovation to be used as the vehicle to study tactic use; and
- identify the appropriate universe from which to draw the sample for the study.

Figure 1

STRATEGIES AND TACTICS

| STRATEGY (based on a consumer's needs regarding the innovation) | TACTIC (based on behaviors used by an innovation advocate to influence a consumer) |
|---|---|
| INFORMATION | Tell |
| | Show |
| | Discuss |
| PERSUASION | Influence |
| | Involve |
| POWER | Reward/Punish |
| | Mandate/Order |

Methodology

The instrumentation developed for this study relied on the use of both structured and open-ended questions to secure the data needed to determine the type and degree of tactic use by innovation advocates. The instruments were a Leadership Actions Survey and an Innovation Advocate Interview Schedule. The following information describes the procedures that were used to develop the instruments, the manner of data collection for each of the instruments and the procedures used to establish reliability of the instruments.

A Leadership Actions Survey (LAS) was adapted from Hull and Kester's (1975) Diffusion Tactics Development Survey. The processes of adaptation and revalidation are described below.

Thirteen of the original 50 tactic examples were deleted since there was no clear agreement among the respondents to their survey concerning categorization of the tactic example as reflecting a specific tactic type.

A survey containing the remaining 37 tactic examples was readministered to 20 educators to insure consistency of perception of tactic type with data from the earlier study, and to establish the percentage of agreement for each tactic example categorized. Agreement by more than 70% of the respondents that a tactic example reflected a specific tactic type was achieved for 29 of the 37 tactic examples. The 29 remaining tactic examples were categorized according to tactic type. Three examples were selected to represent each of the 7 tactic types (tell, show, discuss, influence, involve, reward/punish, mandate/order), based on the highest percentage agreement among respondents to the survey: a total of 21 tactic examples.

The tactic examples were then adapted in the following ways: (1) all action verbs were changed to the past tense to denote an act already completed; (2) the term "user" was changed to "teacher"; and (3) in 5 instances, the wording of the

tactic example was modified to reflect an action that might be taken by a local administrator. Having made these adaptations, the term "tactic example" was changed to "action example" in the LAS. The LAS was readministered to 6 educators to categorize the action examples according to tactic type to insure that the meaning of the action example did not vary substantively from the original tactic example, and that each action example continued to reflect the tactic type by which it had originally been categorized. A minimum of 80% agreement was achieved for each action example.

A Likert-type scale was used to rate the extent to which the advocate used the action depicted in each item. The continuum of responses ranged on a five-point scale to include the following categories: "all", "most", "half", "few", and "none". Each point on the scale was defined for respondents, e.g., "most" - the action was used with less than all, but more than half, of the teachers for whom the curriculum was considered appropriate. Marker items were included in the LAS which paraphrased one item in each of the three strategies (information, persuasion, power) to establish the internal consistency of innovation advocates' responses to the Survey. The marker items were not used in the data analyses.

Telephone interviews were also conducted with innovation advocates. The Innovation Advocate Interview Schedule (IAIS) was designed to yield information to supplement or augment data obtained on the LAS and to confirm advocates' reports of the number of teachers in their programs who were in possession of the curriculum innovation. In addition, several items were included that reflected actions that might be taken by advocates to enhance their potential to gain awareness of innovations and introduce the innovation into their programs.

Prior to data collection, the IAIS was piloted with special education administrators comparable in status and role to innovation advocates. The instrument was

modified based on their recommendations in the areas of improved clarity and communicability, and the amount of time required for administration.

Data Collection and Analysis. Following initial identification, advocates were contacted by letter to explain the study in greater detail and to enlist their cooperation in responding to the LAS. Following receipt of the completed Survey, telephone interviews were conducted with the advocates. Interviews were conducted by a single interviewer who had been trained in the interview procedures. Reliability of responses to the interview schedule was obtained through the use of a callback strategy in which 10% of the advocates were involved. Reinterviews used a shortened version of the interview schedule and were conducted approximately one month following the initial interview. Rate of agreement ranged between 86% and 93%, with a mean agreement of 89%.

Descriptive statistics were calculated for the tactics used by the innovation advocates, and selected advocate demographics. The advocacy tactics were then subjected to correlational and factor analytic procedures. All analyses in this study used parametric statistics. Pearson Product-Moment correlations were used for all correlational analyses. The level of significance reported in the study was .05.

Innovation. The curriculum innovation used in the study was the Social Learning Curriculum (SLC) (Goldstein, H., 1974). The SLC was conceived of and developed by special educators for use with handicapped students. The SLC is commercially available in kit form and includes a teacher's guide, phase books, and supplementary instructional aids (ditto masters, stimulus pictures). Each phase book is based on a particular social adaptive theme and may be used independently of other phases. This makes it possible for several teachers to use materials from the kit simultaneously. This attribute of an innovation, labeled divisibility by Rogers (1962),

has been found to influence the diffusion of a curriculum innovation positively (Camaren, 1966). In the present study, possession of a kit or a phase book constituted a diffusion event.

Sample Identification. From information provided by the publisher of the SLC, it was possible to identify several hundred locations in 24 states where the innovation had been purchased and where an individual responsible for purchasing the SLC might be identified. This information was organized by state. The states were drawn at random to provide a priority system for contacting the individuals initially identified as innovation advocates. Telephone contact was made with each site, using a scripted procedure, to verify the identity of the educator who had served as local advocate for the innovation. Eighteen states and D.C. were included in the study based on the following criteria: an innovation advocate could be identified, and at least one set of curriculum materials had been purchased for classroom use. It was necessary to make 85 verification phone calls in order to identify 50 sites for inclusion in the study. Table 1 shows the reasons why 35 of the sites contacted did not meet the criteria for participation in the study.

Findings

Sample Characteristics. Of the 50 administrators identified as innovation advocates, 39 individuals participated in the study (78%). Of this group, 20 respondents were male and 19 were female. Their ages ranged from 26 to 56+ years ($\bar{X}$ = 39.3 years). Ninety seven percent of the advocates had earned master's degrees; of this group 62% had earned 30 credits beyond a master's degree or a doctorate. Three innovation advocates had no special education administrative experience. The remaining 36 advocates had a mean of 5.6 years of special education administrative experience. Advocates' total number of years of professional experience ranged from 4 to 34 years, with more than 25% of the advocates reporting more than 20 years of experience. The average number of years of professional experience reported by the

Table 1

Reasons for Excluding Sites

from Participation in the Study

| Reason | Number of Respondents | Percent of Respondents |
|---|---|---|
| Teacher initiated purchase | 8 | 23% |
| Leadership person unfamiliar with the innovation | 7 | 20% |
| Leadership person could not be reached by telephone | 7 | 20% |
| Innovation advocate could not be identified | 7 | 20% |
| Innovation advocate relocated | 4 | 11% |
| Materials not yet in use | 2 | 6% |
| TOTAL | 35 | 100% |

advocates, including administration, supervision, teaching, and other education-related activities, was 15.4 years.

Table 2 shows the percentage of innovation according to the type of educational setting within which they function, and by the total pupil enrollment in their special education programs. Examination of the information shows that the advocates are well-distributed across both dimensions. Twenty percent of the advocates were responsible for the special education program in either individual public or private schools, or in institutional settings. The remaining 80% of the advocates worked in public school districts, or in multi-county or regional units. The educational settings most represented in this study were city public school districts, and the combined group of multi-county/regional units, with more than half of the educational settings reflecting these two types of administrative configurations. More than 25% of the advocates worked in educational settings where their responsibilities extended beyond a single school district.

The pupil enrollment figures for special education, ADM, show that almost one third of the educational settings serve between 200 and 399 students. An additional 25% of the settings serve more than 1000 students in their special education programs.

Relationships between Tactic Types. Pearson Product-Moment correlations between the items representing each tactic type, by strategy, are presented in Table 3. From the table it may be seen that of the 21 correlations, sixteen significant relationships between tactic types were identified. Examination of the relationships between tactics within and between strategies shows the following results. Tactics constituting the information strategy do not correlate higher with each other than they do with tactics reflective of the other strategies, Correlations between tactics in the persuasion strategy are higher with tactics reflective of the other

Table 2

Percentage of Innovation Advocates, by Type of Educational Setting and Total Pupil Enrollment in Special Education

| Type of Educational Setting | Total Pupil Enrollment: Special Education | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Under 99 | 100-199 | 200-399 | 400-599 | 600-999 | 1000-2499 | 2500+ | TOTAL PERCENT |
| Public School: Elementary | 2.6 | | 2.6 | | | | | 5.2 |
| Public School: Elementary & Secondary | 2.6 | 2.6 | 2.6 | | | | | 7.8 |
| Public Institution: Elementary | | | 2.6 | | | | | 2.6 |
| Private School: Elementary & Secondary | | 5.2 | | | | | | 5.2 |
| City Public School District | 2.6 | | 10.4 | | 7.8 | 2.6 | 5.2 | 28.6 |
| County Public School District | 2.6 | | 2.6 | 2.6 | 2.6 | 2.6 | 5.2 | 18.2 |
| Unified City/ County District | | | | | | 2.6 | 2.6 | 5.2 |
| Multi-County/ Regional Unit | 2.6 | 2.6 | 10.4 | 5.2 | 2.6 | | 5.2 | 28.6 |
| TOTAL | 13.0 | 10.4 | 31.2 | 7.8 | 13.0 | 7.8 | 18.2 | 101.4* |

* Difference from 100% is due to rounding.

Table 3

Correlations Between Tactic Types, by Strategy

| Strategy | Tactic Type | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|
| Information | 1. Tell | | | | | | |
| | 2. Show | .42* | | | | | |
| | 3. Discuss | .44* | .28* | | | | |
| Persuasion | 4. Influence | .54* | .43* | .62* | | | |
| | 5. Involve | .39* | .56* | .13 | .32* | | |
| Power | 6. Reward/ Punish | .42* | .43* | .68* | .59* | .28* | |
| | 7. Mandate/ Order | .29* | .14 | .24 | .30* | .12 | .24 |

* = $p < .05$

strategies than they are with each other; and tactics conceived to be part of a power strategy do not correlate significantly with each other, but do correlate significantly with tactic types reflective of the other strategies.

It was found, therefore, that the logical structure of tactic types devised by Hull and Kester (1975) did not permit differentiation among advocates when applied to the measurement of the actions they used to introduce a specific curriculum into their educational systems. Consequently, a factor analytic procedure was applied to the LAS to yield an interpretable construct. A varimax rotation yielded factor loadings for three factors, as the most parsimonious presentation of the data; a solution that allowed 14 items to be retained and accounted for the greatest amount of variance of any of the solutions attempted.

The tactic use factors identified from the factor analysis are shown in Table 4. The table also shows the original classification for each item by tactic type. The factors were named according to the theoretical conceptualization of strategies of changing devised by Chin and Benne (1969), to show advocates' use of empirical-rational, power-coercive, and normative-re-educative tactics. A rationale for naming the factors was provided by fitting the items in each factor into their framework on the basis of logical analysis (Goldstein, M. 1979). However, since the survey was not constructed to test Chin and Benne's theoretical conceptualization, several elements contained in their formulation were not included in the LAS. Nonetheless, this approach appeared preferable to generating a new framework within which to describe the tactic use factors.

Table 4 shows that of the seven items identified as components of the empirical-rational tactic use factor, four items had originally been categorized as part of an information strategy. The remaining items show two influence tactic actions and one item reflecting the use of rewards. The common theme among the items appears to be that all represent actions on the part of the innovation advocate that involve

Table 4

Factor Loadings, by Tactic Use Factor

| LEADERSHIP ACTIONS SURVEY ITEM | FACTOR LOADING | ORIGINAL TACTIC TYPE |
|---|---|---|
| *Empirical-Rational Tactic Use Factor* | | |
| Answered question about the innovation at meetings. | .76 | discuss |
| Explained the innovation through conferences with professional staff. | .66 | discuss |
| Endorsed the innovation through persons perceived as highly credible by the teachers. | .65 | influence |
| Gave recognition to teachers for trying the innovation. | .65 | reward/punish |
| Asked persons respected by the teachers to present the innovation to them. | .54 | influence |
| Provided explicit instructions by the developer on how to use the innovation. | .48 | tell |
| Visited a site which has installed the innovation. | .48 | show |
| *Power-Coercive Tactic Use Factor* | | |
| Set a deadline for teachers to incorporate the innovation into classroom activities. | .99 | mandate/order |
| Compelled teachers to use the innovation. | .89 | mandate/order |
| Established program policies to insure the use of the innovation. | .58 | mandate/order |
| *Normative-Re-educative Tactic Use Factor* | | |
| Observed the innovation in operation. | .87 | show |
| Presented the innovation as unfinished to allow teachers to make it their own. | .60 | involve |
| Observed the effectiveness of the innovation in classrooms. | .59 | show |
| Allowed teachers to adapt the innovation to local conditions. | .45 | involve |

the communication of information, and occur outside the classroom.

As shown in Table 4, the three items identified within the power-coercive tactic use factor were originally categorized as items reflecting innovation advocates' use of mandate/order tactics. This factor, therefore, was strongly associated with an advocate's use of a power strategy, particularly insofar as advocates used legitimate authority as the basis for establishing program policies which they considered desirable.

The normative-re-educative tactic use factor, also arrayed in Table 4, included two items which were originally categorized as show tactics and two which were categorized as involve tactics. The common theme among these items is that they portray the advocate as creator of the conditions within which teachers may innovate, and show teachers as active participants in their own learning and growth.

Unused Items. The seven items which did not load on any of the three factors are shown in Table 5. The percentage of innovation advocates who used each tactic action is reported, according to whether the action was used with all, most, half, or few of the teachers for whom the advocate considered the innovation to be appropriate. Four of the tactic actions were used by more than 50% of the advocates as part of their approach to introducing an innovation. One item of the reward/punish tactic type, "Gave pay to teachers for using the innovation," showed no variation among advocates' responses. No innovation advocate reported giving financial rewards to teachers for using the innovation.

Innovation Advocate Interview Schedule responses. When the tactic use factors were correlated with items contained in the IAIS, several significant relationships were noted. These are shown in Table 6.

The sole significant relationship between the extent of diffusion of the primary level of the Social Learning Curriculum (teachers in possession of all or part of the curriculum at the time of the study) was to the empirical-rational

Table 5

Innovation Advocates' Extent of Use
of Tactic Actions Not Included
as part of the Three-Factor Structure

| Tactic Action Example | Extent of Use of Action | | | | Total N Advocates | Percent |
|---|---|---|---|---|---|---|
| | all | most | half | few | | |
| Provided teachers with print material about the innovation. | 28 | 4 | 3 | 1 | 36 | 92% |
| Emphasized aspects of the innovation consistent with what the teacher expects. | 19 | 7 | 1 | 5 | 32 | 82% |
| Provided information about how the innovation has been used in other places. | 15 | 3 | 2 | 2 | 22 | 56% |
| Asked teachers to give their reasons for accepting or rejecting the innovation. | 8 | 3 | 2 | 7 | 20 | 51% |
| Conducted a pilot test of the innovation. | 5 | 1 | - | 6 | 12 | 31% |
| Warned teachers of the consequences of resisting using the innovation. | 1 | 1 | - | - | 2 | 5% |
| Gave pay to teachers for using the innovation. | - | - | - | - | - | - |

Table 6

Relationships Between Tactic Use Factors and Innovation Advocate Interview Items

| IAIS Item | Tactic Use Factors** | | |
|---|---|---|---|
| | ER | PC | NR |
| Diffusion of the innovation to teachers*** | .34* | .07 | -.04 |
| System of teacher access to the innovation (total kit, single phase book) | .02 | -.17 | .05 |
| Advocate attendance at a workshop at which the innovation was presented (awareness session) | .44* | .11 | -.05 |
| Advocate receipt of feedback from teachers about the innovation | .41* | -.07 | .17 |
| Number of meetings/conferences attended by the advocate out-of-district over a two-year period | -.17 | .27* | .04 |
| Number of meetings/conferences attended by the advocate, as a participant, out-of-district over a two-year period | .30* | .30* | .10 |

* = $p \leq .05$

** ER=empirical-rational tactic use factor; PC=power-coercive tactic use factor; and NR=normative-re-educative tactic use factor

*** The measure of diffusion was calculated using the following formula:

$$P_{adj} = a - b + c$$

a = the number of teachers in possession of the primary level of the innovation

b = the number of teachers whose classes were considered appropriate to use the primary level of the innovation

c = a constant

tactic use factor. From the data it may also be seen that empirical-rational tactic users appeared to make greater use of resources external to their educational settings, through participation in professional conferences and attendance at a workshop at which the innovation was presented, than did low empirical-rational tactic users. In addition, they sought teacher feedback concerning the innovation prior to its implementation. Advocates' use of empirical-rational tactics suggests their reliance on communication as the primary means by which they influence the introduction of innovation into their systems: specifically, the two-way flow of information between advocates and teachers.

Advocates' use of power-coercive tactics related positively to their attendance and participation in professional meetings outside their school systems. While high power-coercive tactic users may seek information about innovative practices through the use of professional resources beyond their school systems, there was no indication of the use to which the information is put after it is obtained.

Least information was obtained concerning advocates' use of normative-re-educative tactics to introduce curriculum innovation, since no significant relationships were found between the normative-re-educative tactic use factor and measures of supportive advocacy actions that might have been used. It is possible that this factor reflects an advocacy approach in which the advocate creates the conditions within which others may innovate or a laissez-faire approach in which the advocate does not attempt to influence teachers' actions with respect to innovative practices. It is also possible that a combination of these approaches is reflected in the normative-re-educative tactic use factor. Clearly, one avenue for further research is the need to more fully define and refine ways in which this factor might be more adequately assessed.

## Summary and Implications

This study of administrative tactics used to introduce a curriculum innovation into special education programs employed survey and interview procedures. The survey was adapted from earlier work by Hull and Kester (1975), based on their theoretical framework of tactic types logically structured to reflect the amount of freedom of choice available to the prospective implementor of the innovation. Hull and Kester's logical structuring of tactic types did not differentiate among advocates' actions to introduce a curriculum innovation. Consequently, a factor analytic procedure was applied to the data. Three tactic use factors were identified and named following Chin and Benne's (1969) conceptualization of strategies of changing, to reflect advocates' use of empirical-rational, power-coercive, and normative-re-educative tactics. The identification of these factors offers a degree of empirical support for the theoretical efforts of Chin and Benne (1969), Sieber (1972), and others.

The findings of this study suggest that high empirical-rational tactic users had greater influence on the introduction of the curriculum innovation, as evidenced by the two-way communication that they maintained with prospective implementors and by their interest in gaining more information about the innovation through workshop attendance. Less information is available concerning advocacy patterns for high power-coercive tactic users. While they did demonstrate outreach for information, as seen in their attendance and participation in meetings beyond the boundaries of their school systems, there is no way to determine the extent to which this had any impact on advocacy behaviors used in their school systems. The absence of information concerning the active advocacy role of high normative-re-educative tactic users suggests that further research is needed to identify more discretely tactics associated with this factor. The findings reported must be viewed cautiously, due to

limitations of sample size and the self-report procedures that were used for data collection. Consequently, further study is needed to validate the factor structure, using a more diverse array of items and other types of innovations. Additionally, improved measures of tactic use that do not rely solely on advocates' self reports are needed if we are to gain greater understanding of the complex process of introducing innovation in educational settings.

The introduction of a curriculum innovation into a school or school district is, in fact, a complex undertaking. It is worth noting, however, that this represents only the first step in the innovation process. Equally important are the consequences of using a particular pattern of tactic use for the fate of the innovation once it is in the possession of implementors. At a time of great social and economic change, with the prospect of substantial impact on education, these represent worthy areas for future attention in the educational research community.

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Appendix C

## LEADERSHIP ACTIONS SURVEY

DIRECTIONS

Attached you will find a survey containing twenty-four examples of actions that you might have used with your teachers as part of a plan to have them learn about and use the Social Learning Curriculum. (Where a reference is made in the Survey to "innovation," the reference is to the Social Learning Curriculum.) Keep in mind that these actions might have been part of a larger plan as, for example, a training session or workshop.

You are asked to check the box which most accurately indicates the extent to which you used each action, according to the categories provided below.

ALL - The action was used with all of the teachers for whom I considered the level of the Social Learning Curriculum to be appropriate.

MOST - The action was used with less than all, but more than half, of the teachers for whom I considered the level of the Social Learning Curriculum to be appropriate.

HALF - The action was used with half of the teachers for whom I considered the level of the Social Learning Curriculum to be appropriate.

FEW - The action was used with less than half, but more than none, of the teachers for whom I considered the level of the Social Learning Curriculum to be appropriate.

NONE - The action was not used with any of the teachers for whom I considered the level of the Social Learning Curriculum to be appropriate.

Further, since you may feel that certain of the actions were more useful than others, I ask that you check (✓) the six actions that you considered to be the most important elements of your plan to assist your teachers to learn about, and to use, the Social Learning Curriculum.

Finally, if you used actions other than those included in this survey, please list them in the space provided for that purpose.

Thank you in advance for your cooperation.

# LEADERSHIP ACTIONS SURVEY

Appendix D

| ACTION EXAMPLE | ALL | MOST | HALF | FEW | NONE |
|---|---|---|---|---|---|
| 1. Provided teachers with printed materials about the innovation. | | | | | |
| 2. Asked persons respected by the teachers to present the innovation to them. | | | | | |
| 3. Provided information about how the innovation has been used in other places. | | | | | |
| 4. Presented the innovation as unfinished to allow teachers to make it their own. | | | | | |
| 5. Emphasized aspects of the innovation that are consistent with what the teacher expects. | | | | | |
| 6. Answered questions about the innovation at meetings. | | | | | |
| 7. Gave recognition to teachers for trying the innovation. | | | | | |
| 8. Set a deadline for teachers to incorporate the innovation into their classroom activities. | | | | | |
| 9. Asked teachers to give their reasons for accepting or rejecting the innovation. | | | | | |
| 10. Observed the effectiveness of the innovation in classrooms. | | | | | |
| 11. Warned teachers of the consequences of resisting using the innovation. | | | | | |
| 12. Endorsed the innovation through persons perceived as highly credible by the teachers. | | | | | |
| 13. Provided explicit instructions by the developer on how to use the innovation. | | | | | |
| 14. Allowed the teachers to adapt the innovation to local conditions. | | | | | |
| 15. Explained the innovation through conferences with professional staff. | | | | | |

| | ACTION EXAMPLE | ALL | MOST | HALF | FEW | NONE |
|---|---|---|---|---|---|---|
| ____ | 16. Visited a site which has installed the innovation. | | | | | |
| ____ | 17. Compelled teachers to use the innovation. | | | | | |
| ____ | 18. Conducted a pilot test of the innovation. | | | | | |
| ____ | 19. Gave pay to teachers for using the innovation. | | | | | |
| ____ | 20. Observed the innovation in operation. | | | | | |
| ____ | 21. Established program policies to insure the use of the innovation. | | | | | |
| ____ | 22. Informed teachers about the innovation at meetings. | | | | | |
| ____ | 23. Required teachers to use the innovation in their classrooms. | | | | | |
| ____ | 24. Tried the innovation on a small scale. | | | | | |

Now, please check (✓) the six actions which you considered to be most useful in assisting teachers to become familiar with, and to use, the Social Learning Curriculum. Space is provided at the left for this purpose.

Finally, please list below any actions that you used which were not included among the action examples in this survey.

Thank you.